JP-2003-277537A

[Claims]

[Claim 1]

A transparent moisture-resistant gas barrier film, characterized in that the transparent moisture-resistant gas barrier film is obtained by applying a silica sol solution onto a transparent resin film as a substrate, and forming a coat from the silica sol solution, and that the silica sol solution contains, as a main component, an alkoxysilane compound and 5 to 30 wt% of a hydrophilic resin composition relative to the alkoxysilane compound.

[Claim 2]

The transparent moisture-resistant gas barrier film according to claim 1, wherein the hydrophilic resin composition is 5 to 30 wt% of polyvinylpyrrolidone relative to the alkoxysilane compound.

[Claim 3]

The transparent moisture-resistant gas barrier film according to claim 1, wherein the hydrophilic resin composition is 10 to 30 wt% of polyethylene glycol relative to the alkoxysilane compound.

[Claim 4]

The transparent moisture resistant gas barrier film according to any one of claims 1 to 3, wherein the alkoxysilane compound is a mixture of a trifunctional alkoxysilane compound and a tetrafunctional alkoxysilane compound.

## [0022]

As the method for the application and formation of the coat in the present invention, application methods commonly used such as dipping, spraying, spin coating, roll coating, and gravure coating can be employed. The thickness of the coat is preferably in the range of 0.2 to 10  $\mu m$ , more preferably 1 to 3  $\mu m$ .

[0023]

After the application, the applied matter is left to stand at room temperature for several minutes to one night or so. After that, the applied matter is dried at 50 to 150°C, preferably at 80 to 120°C, and more preferably at about 100°C, for several tens of minutes to several hours or more, so that the coat is formed. If the temperature for drying is set to be high within the range of heat-resistance of the substrate film, drying can be preformed for a shorter time.